

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for Form 1449/A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

**Complete if Known**

Application Number	10/668,085
Filing Date	September 22, 2003
First Named Inventor	Gary L. Bowlin
Group Art Unit	2861
Examiner Name	Not Yet Assigned
Attorney Docket Number	49122-0162 (49122-2926)

Sheet 1 of 7

**U.S. PATENT DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
JK	1	1,975,504		A. Formhals	10-02-1934	
	2	3,892,648		Phillips et al.	07-01-1975	
	3	4,043,331		Martin et al.	08-23-1977	
	4	4,044,404		Martin et al.	08-30-1977	
	5	4,294,677		Sakagami et al.	10-13-1981	
	6	4,552,707		How	11-12-1985	
	7	4,565,736		Stein et al.	01-21-1986	
	8	4,657,793		Fisher	04-14-1987	
	9	4,738,740		Pinchuk et al.	04-19-1988	
	10	5,171,505		Lock	12-15-1992	
	11	5,252,285		Lock	10-12-1993	
	12	5,256,418		Kemp et al.	10-26-1993	
	13	5,292,362		Bass et al.	03-08-1994	
	14	5,580,859		Felgner et al.	12-03-1996	
	15	5,655,517		Coffee	08-12-1997	
	16	5,693,085		Buirge et al.	12-02-1997	
	17	5,723,324		Bowlin et al.	03-03-1998	
	18	5,813,614		Coffee	09-29-1998	
	19	5,902,741		Purchio et al.	05-11-1999	
	20	5,906,934		Grande et al.	05-25-1999	
	21	5,908,777		Lee et al.	06-01-1999	
	22	5,912,177		Turner et al.	06-15-1999	
	23	5,915,377		Coffee	06-29-1999	
	24	5,948,654		Tranquillo et al.	09-07-1999	
	25	6,057,137		Tranquillo et al.	05-02-2000	
	26	6,068,199		Coffee	05-30-2000	
	27	6,093,557		Pui et al.	07-25-2000	
	28	6,096,309		Prior et al.	08-01-2000	
	29	6,100,026		Nova et al.	08-08-2000	
	30	6,103,255		Levene et al.	08-15-2000	
	31	6,105,571		Coffee	08-22-2000	
	32	6,105,877		Coffee	08-22-2000	
J	33	6,106,913		Scardino et al.	08-22-2000	

Examiner  
Signature

Koranne Kossor

Date  
Considered

6/23/05

<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent document, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for Form 1449/A/PTO		<b>Complete if Known</b>	
		Application Number	10/668,085
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)		Filing Date	September 22, 2003
		First Named Inventor	Gary L. Bowlin
		Group Art Unit	2861
		Examiner Name	Not Yet Assigned
Sheet	2	of	7
		Attorney Docket Number	49122-0162 (49122-292673)

**U.S. PATENT DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
✓	34	6,110,484		Sierra	08-29-2000	
	35	6,110,590		Zarkoob et al.	08-29-2000	
	36	6,117,296		Thomson	09-12-2000	
	37	6,121,042		Peterson et al.	09-19-2000	
	38	6,146,892		Ma et al.	11-14-2000	
	39	6,179,872	B1	Bell et al.	01-30-2001	
	40	6,180,605	B1	Chen et al.	01-30-2001	
	41	6,180,606	B1	Chen et al.	01-30-2001	
	42	6,190,893	B1	Shastri et al.	02-20-2001	
	43	6,197,575	B1	Griffith et al.	03-06-2001	
	44	6,245,345	B1	Swanbom et al.	06-12-2001	
	45	6,252,129	B1	Coffee	06-26-2001	
	46	6,254,627	B1	Freidberg	07-03-2001	
	47	6,265,333	B1	Dzenis et al.	07-24-2001	
	48	6,306,424	B1	Vyakarnam et al.	10-23-2001	
	49	6,308,509	B1	Scardino et al.	10-30-2001	
	50	6,309,669	B1	Setterstrom et al.	10-30-2001	
	51	6,318,640	B1	Coffee	11-20-2001	
	52	6,386,195	B1	Coffee	05-14-2002	
	53	6,399,362	B1	Pui et al.	06-04-2002	
	54	US2001/0003148	A1	Coffee	06-07-2001	
	55	2002/0084178	A1	Dubson et al.	07-04-2002	
	56	2002/0089094	A1	Kleinmeyer et al.	07-11-2002	
	57	2002/0091437	A1	Tseng et al.	07-11-2002	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	†
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	58	GB	1377022		Avicon, Inc.	12-11-1974		
	59	GB	2360789	A	Mason Christopher	10-03-2001		
	60	RU	2031661			03-27-1995	See XP002046663	
✓	61	WO	9803267	A	Electrosols, Inc.	01-29-1998		

Examiner Signature	<i>Rosanne Kisser</i>	Date Considered	6/23/05
--------------------	-----------------------	-----------------	---------

<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent document, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for Form 1449/A/PTO		<b>Complete if Known</b>	
		Application Number	10/668,085
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)		Filing Date	September 22, 2003
		First Named Inventor	Gary L. Bowlin
		Group Art Unit	2861
		Examiner Name	Not Yet Assigned
		Attorney Docket Number	49122-0162 (49122-292673)
Sheet	3	of	7

## FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	†
		Office <sup>2</sup>	Number <sup>3</sup>	Kind Code <sup>4</sup> (if known)				
R/R	62	EP	RU2031661	C1	Nauchno-proizvodstvennoe predpriyatie "Ehkomedservis," Institut Khirurgii im. A. V. Vishnevskogo RAMN	03-27-1995	EP	
	63 ✓	PCT	WO 01/74431	A2	Electrosols, Ltd.	10-11-2001	PCT	
	64 ✓	EP	0234841	A2	Imperial Chemical industries PLC	09-02-1987		
	65 ✓	EP	0234842	A2	Imperial Chemical industries PLC	09-02-1987		
	66 ✓	EP	0234842	B1	Imperial Chemical industries PLC	09-02-1987		
	67 ✓	EP	0250102	A2	Imperial Chemical Industries PLC	12-23-1987		
	68 ✓	EP	0250164	A2	Imperial Chemical Industries PLC	12-23-1987		
	69 ✓	EP	0250164	B1	Imperial Chemical Industries PLC	01-23-1991		
	70 ✓	RU	2034534	C1	Kirichenko et al.	05-10-1995		
	71 ✓	WO	94/13266	A1	The Regents of the University of California	06-23-1994		
	72 ✓	WO	95/26235	A1	Electrosols LTD.	10-05-1995		
	73 ✓	WO	00/67694	A1	Electrosols LTD.	11-16-2000		
	74 ✓	WO	00/72857	A1	Bristol-Myers Squib Co.	12-07-2000		
	75 ✓	WO	01/26702	A2	The University of Akron	04-19-2001		
	76 ✓	WO	02/00149	A1	Drexel University	01-03-2002		
	77	WO	02/13786	A2	Board of Trustees of the University of Illinois	02-21-2001		
	78 ✓	WO	01/26610	A1	The University of Akron	04-19-2001		
	79 ✓	WO	01/27365	A1	The University of Akron	04-19-2001		
J	80 ✓	WO	01/51690	A1	Drexel University and The Trustees of the University of Pennsylvania	07-19-2001		

Examiner Signature	<i>Rosanne Kossor</i>	Date Considered	6/23/05
-----------------------	-----------------------	--------------------	---------

<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent document, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for Form 1449/A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)		<b>Complete if Known</b>	
		Application Number	10/668,085
		Filing Date	September 22, 2003
		First Named Inventor	Gary L. Bowlin
		Group Art Unit	2861
		Examiner Name	Not Yet Assigned
Sheet 4	of 7	Attorney Docket Number	49122-0162 (49122-292672)

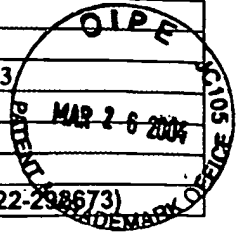
OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
RK	81 ✓	Abstract of FR1494094, Polymer-bonded leather-like sheet material, F. Andrieu, 09-08-1967, Derwent	
	82 ✓	Abstract of JP 08-035193, Preparation of sheet of nonwoven fabric of collagen fibre - by injecting acidic solution of soluble collagen through spinning dyes into aq. conc. solution of salt, cutting obtd. fibre and paper making, Mitsubishi Rayon Co. Ltd., 02-06-1996, Derwent	
	83 ✓	Abstract of RU2031661, Nauchno-proizvodstvennoe predpriyatie "Ehkomedservis," Institut Khirurgii Im.A.V.Vishnevskogo RAMN, Derwent, XP 00204663	
	84 ✓	Abstract of RU 2034534, Kirichenko, et al. Derwent World Patents Inc., Dialog File No. 351 Accession No. 10521633	
	85 ✓	AGRAWAL, C.M. et al., "Technique to Control pH in Vicinity of Biodegrading PLA-PGA Implants", J. Biomed. Mater Res., 1997, pp. 105-114, Vol. 38.	
	86 ✓	AKINS, R.E. et al., "Neonatal Rat Heart Cells Cultured in Simulated Microgravity", In Vitro Cell. Dev. Biol. - Animal, 1997, pp. 337-343, Vol. 33.	
	87 ✓	AMSDEN et al., "An examination of factors affecting the size, distribution and release characteristics of polymer microbeads made using electrostatics", Journal of Controlled Release, 1997, pp. 183-196, vol. 43.	
	88 ✓	BAKER, T.L. et al., "Three-Dimensional Culture of Bovine Chondrocytes in Rotating-Wall Vessels", In Vitro Cell. Dev. Biol. - Animal, 1997, pp. 358-365, Vol. 33.	
	89 ✓	BOLAND et al., "Tailoring a Poly (Glycolic Acid) Tissue Engineering Scaffold by Utilizing Electrostatic Processing," Abstract of Presentation at the 4th International Symposium on Frontiers in Biomedical Polymers, Williamsburg, VA, May 16, 2001.	
	90 ✓	BOLAND et al., "Electrospinning of Tissue Engineering Scaffolds," Paper Presented at American Chemical Society Div. Of Polymeric Materials: Science and Engineering, Presented August 26, 2001, Chicago, IL, Publication approximately July 2001.	
	91 ✓	BOWLIN et al., "Electrospinning of Biomaterials," Abstract for Presentation at the Second Conference on the Development of Technology in Medicine for Virginia, at the University of Virginia, Presented November 2, 1999.	
	92 ✓	BOWLIN et al., "Electric Field-Mediated Processing of Biomaterials: Toward Nanostructured Biomimetic Systems," Abstract of Presentation at SPIE Annual Meeting, Newport Beach, CA, presented March 8, 2001.	
	93 ✓	BOWLIN, G., "The New 'Spin' on Tissue Engineering Scaffolds," Abstract for Keynote Address at the 4th International Symposium on frontiers in Biomedical Polymers, Williamsburg, VA, Presented May 17, 2001.	
	94 ✓	BOWLIN et al., "Electrospinning of Biomaterials," Paper for Presentation at Fiber Society Spring 2001 Meeting, Raleigh, NC, Presented May 23, 2001.	
	95 ✓	BOWLIN, G., "Biomimicking Small Caliber Vascular Construct Engineering," Abstract for Presentation at 2001 Whitaker Foundation Biomedical Engineering Conference, La Jolla, CA, Presented August 9, 2001.	
	96 ✓	BUCHKO, C.J. et al., "Processing and Microstructural Characterization of Porous Biocompatible Protein Polymer Thin Films", Polymer, 1999, pp. 7397-7407, Vol. 40.	
	97 ✓	CAVALLARO, J.F. et al., "Collagen Fabrics as Biomaterials", Biotechnology and Bioengineering, 1994, pp. 781-791, Vol. 43.	
	98 ✓	CHEN, DA-REN et al., "Experimental Investigation of Scaling Laws for Electrospinning: Dielectric Constant Effect", Aerosol Science and Technology, 1997, pp. 367-380, Vol. 27	
	99 ✓	DEITZEL, J.M. et al., "Generation of Polymer Nanofibers Through Electrospinning", Army Research Laboratory, 1999, pp. 1-33, ARL-TR-1989.	
	100 ✓	DOSHI, J. et al., "Electrospinning Process and Applications of Electrospun Fibers", J. Electrostatics, 1995, pp. 151-160, Vol. 35.	
	101 ✓	EKOMEDSERVIS: "WPI World Patent Information Derwent, Derwent, GB", WPI World Patent Information Derwent, Derwent, GB, Vol. 44, Nr. 95, London, GB, (XP002046663)	
	102 ✓	ESQUIVEL, C., et al., "Why Small Caliber Vascular Grafts Fail: A Review of Clinical and Experimental Experience and the Significance of the Interaction of Blood at the Interface," J. Surgical Research, 1986, pp. 1-15, vol. 41.	
	103 ✓	FERBER, D., "Lab-Grown Organs Begin to Take Shape", Science, 1999, pp. 422-424, Vol. 284.	
	104 ✓	FREED, L.E. et al., "Microgravity Tissue Engineering", In Viro Cell. Dev. Biol. - Animal, 1997, pp. 381-385, Vol. 33.	

Examiner Signature	<i>Rosanne Koser</i>	Date Considered	6/23/05
--------------------	----------------------	-----------------	---------

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for Form 1449/A/PTO		<b>Complete if Known</b>	
		Application Number	10/668,085
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)		Filing Date	September 22, 2003
		First Named Inventor	Gary L. Bowlin
		Group Art Unit	2861
		Examiner Name	Not Yet Assigned
		Attorney Docket Number	49122-0162 (49122-298673)
Sheet	5	of	7



OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
RK	105	GIBSON, P.W. et al., "Electrospun Fiber Mats: Transport Properties", U.S. Army Natick Research, Development and Engineering Center, AICHE Journal, 1999, pp. 190, vol. 45	
	106	GOJO, S. et al., "Transplantation of Genetically Marked Cardiac Muscle Cells", J. Thorac. Cardiovasc. Surg., 1997, pp. 10-18, Vol. 113.	
	107	GORODETSKY, R., "Fibrin Microbeads (FMB) as biodegradable microcarriers for cultured cells and wound healing," ABSTRACT, <a href="http://www.Hadassah.org.il/hadasi/patent17.htm">http://www.Hadassah.org.il/hadasi/patent17.htm</a> , June 14, 2000, pp.1.	
	108	GOSPODAROWICZ, D., et al., "The Extracellular Matrix and the Control of Proliferation of Vascular Endothelial and Vascular Smooth Muscle Cells," J. Supramolecular Structure, 1980, pp. 339-372, vol. 13. (missing pp 359-372)	
	109	HERBERT, C.B., et al., "Effects of fibrin micromorphology on neurite growth from dorsal root ganglia cultured in three-dimensional fibrin gels," J. Biomed. Mater. Res., 1998, pp. 551-559, vol. 40.	
	110	HOPKINS, S.P. et al., "Controlled delivery of vascular endothelial growth factor promotes neovascularization and maintains limb function in a rabbit model of ischemia", J. Vascular Surgery, 1998, pp. 886-895, Vol. 27, no. 5.	
	111	HUANG, L. et al., "Generation of Synthetic Elastin-Mimetic Small Diameter Fibers and Fiber Networks", Macromolecules, 2000, pp. 2989-2997, Vol. 33.	
	112	HUANG, L. et al., "High-Resolution Analysis of Engineered Type I Collagen Nanofibers by Electron Microscopy," Scanning, 2001, pp.372-375, vol. 23.	
	113	KIM, B-S et al., "Optimizing Seeding and Culture Methods to Engineer Smooth Muscle Tissue on Biodegradable Polymer Matrices", Biotechnology Bioengineering, 1998, pp. 46-54, Vol. 57.	
	114	KIM, B-S et al., "Engineering smooth muscle tissue with a predefined structure", J. Biomed. Mater. Res., 1998, pp. 322-332, Vol. 41.	
	115	KOH, G.Y. et al., "Long-term survival of AT-1 cardiomyocyte grafts in syngeneic myocardium", Am. Jour. Physiol., 1993, pp. H1727-H1733, Vol. 264.	
	116	LI, R-K et al., "In Vivo Survival and Function of Transplanted Rat Cardiomyocytes", Circulation Res., 1996, pp. 283-288, Vol. 78, No. 2.	
	117	MANDANAS, R.A., "Formation of fibrin clots in cryopreserved stem cell bags during thawing procedure: lack of impact on engraftment in autologous stem cell transplantation," Bone Marrow Transplantation, 1999, pp. 303-305, vol. 23. (missing pp. 305)-	
RK	118	MATTHEWS et al., "Vascular Engineering Utilizing Electrospun Collagen," Abstract for Presentation at Engineering Tissues, Hilton Head Island, SC, February 24, 2001.	
	119	MATTHEWS et al., "Electroprocessing: Fabrication of Novel Biocompatible Materials," Abstract for Presentation at the 4th International Symposium on Frontiers in Biomedical Polymers, Williamsburg, VA, Presented May 16, 2001.	
	120	MIKOS, A.G. et al., "Wetting of poly (L-lactic acid) and poly (DL-lactic-co-glycolic acid) foams for tissue culture," Biomaterials, 1994, pp.55-58, vol. 15, no. 1.	
	121	MOONEY, D.J., et al., "Design and Fabrication of Biodegradable Polymer Devices To Engineer Tubular Tissues," Cell Transplantation, 1994, pp. 203-210, vol. 3, no. 2.	
	122	MOROZOV, V.N. et al., "Atomic force microscopy of structures produced by electrospaying polymer solutions", International Journal of Mass Spectrometry, 1998, pp. 143-159, Vol. 178.	
	123	MOROZOV, V.N. et al., "Electrospray Deposition as a Method to Fabricate Functionally Active Protein Films", Analytical Chem., April 1, 1999, pp. 1415-1420, Vol. 71, No. 7.	
	124	MURRY, C.E. et al., "Skeletal Myoblast Transplantation for Repair of Myocardial Necrosis", J. Clin. Invest., 1996, pp. 2512-2523, Vol. 98, no. 11.	
	125	NIKLASON, L.E. et al., "Functional Arteries Grown in Vitro", Science, 1999, pp. 489-493, Vol. 284.	
	126	OKANO et al., "Hybrid Muscular Tissues: Preparation of Skeletal Muscle Cell-Incorporated Collagen Gels," Cell Transplantation, 1997, pp. 109-118, Vol. 6, No. 2.	

Examiner Signature	<i>Rosanne Kossor</i>	Date Considered	6/23/05
--------------------	-----------------------	-----------------	---------

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language translation is attached.

PTO/SB/08B (08-00)

Approved for use through 10/31/2002 OMB 0651-0031

Not present in any parent case.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for Form 1449/A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)		Application Number	10/668,085
		Filing Date	September 22, 2003
		First Named Inventor	Gary L. Bowlin
		Group Art Unit	2861
		Examiner Name	Not Yet Assigned
Sheet 6	of 7	Attorney Docket Number	49122-0162 (49122-292673)

OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
RL	127	PAWLOWSKI <i>et al.</i> , "Electrospinning a Biodegradable Vascular Tissue Engineering Scaffold," Abstract for Presentation at the 4th International Symposium on Frontiers in Biomedical Polymers, Williamsburg, VA, Presented May 16, 2001.	
	128	PELLEGRINI, G., <i>et al.</i> , "The Control of Epidermal Stem Cells (Holoclones) in the Treatment of Massive Full-Thickness Burns with Autologous Keratinocytes Cultured on Fibrin," Transplantation, September 27, 1999, pp. 866-879, vol. 68, no. 6	
RL	129	PEPPER, M.S., "Manipulating Angiogenesis", Arteriosclerosis, Thrombosis, and Vascular Biol., 1997, pp. 605-619, Vol. 17.	
	130	PINS, G.D. <i>et al.</i> , "Self-Assembly of Collagen Fibers Influence of Fibrillar Alignment and Decorin on Mechanical Properties", Biophysical Journal, 1997, pp. 2164-2172, Vol. 73.	
	131	PISTNER, H. <i>et al.</i> , "Poly(L-lactide): a long-term degradation study <i>in vivo</i> , Part III Analytical characterization", Biomaterials, 1993, pp. 293-298, Vol. 14.	
	132	RENEKER, D.H. <i>et al.</i> , "Nanometer diameter fibres of polymer, produced by electrospinning", Nanotechnology, 1996, pp. 216-223, Vol. 7.	
	133	RODEO, S.A., "New and Emerging Treatments for Cartilage and Meniscus Injuries," MD Vista J. Medicine, 2000, pp. 1-4.	
RL	134	ROHR, S. <i>et al.</i> , "Patterned Growth of Neonatal Rat Heart Cells in Culture", Circulation Res., 1991, pp. 114-130, Vol. 68.	
	135	SABELMAN, E.E., <i>et al.</i> , "Composite Cell/Tissue Replacement for Nerve and Pressure Sore Repair," <a href="http://guide.Stanford.edu/Publications/clinB.html">http://guide.Stanford.edu/Publications/clinB.html</a> , June 15, 2000, pp. 1-2.	
	136	SCHREUDER-GIBSON, H., "Electrospinning Polymer Fibers", <a href="http://www-sscom.army.mil/warrior/97/apr/yarn.htm">www-sscom.army.mil/warrior/97/apr/yarn.htm</a> , U.S. Army Natick Research, Development & Engineering Center, 1997	
	137	SHINOKA, T. <i>et al.</i> , "Creation of Viable Pulmonary Artery Autografts Through Tissue Engineering", J. Thorac. Cardiovasc. Surg., 1998, pp. 536-546, Vol. 115.	
	138	SIMPSON, D.G. <i>et al.</i> , "Modulation of Cardiac Myocyte Phenotype <i>In Vitro</i> by the Composition and Orientation of the Extracellular Matrix", J. Cellular Physiol., 1994, pp. 89-105, Vol. 161.	
	139	SOONPAA, M.H. <i>et al.</i> , "Formation of Nascent Intercalated Disks Between Grafted Fetal Cardiomyocytes and Host Myocardium", Science, 1994, pp. 98-101, Vol. 264.	
	140	STITZEL, J.D., <i>et al.</i> , "Arterial Smooth Muscle Cell Proliferation on a Novel Biomimicking, Biodegradable Vascular Graft Scaffold," J. Biomaterials Applications, 2001, pp. 1-12, vol. 15.	
	141	STITZEL <i>et al.</i> , "Electrospraying and Electrospinning of Polymers for Biomedical Applications. Poly (lactic-co-glycolic acid) and Poly (ethylene-co-vinylacetate)." Proc. 32nd Society for the Advancement of Material and Process Engineering (SAMPE) Meeting, Boston, MA, Presented Nov. 7, 2000.	
	142	STITZEL, J., "Mechanical Design and Development of a Biomimicking, Biodegradable Vascular Graft, Thesis Submitted at Virginia Commonwealth University, Richmond, VA, August 2000, Indexed February 9, 2001.	
	143	TELEMCO, T. <i>et al.</i> , "Electrospinning Applications in Bioengineering: Fabrication of Bio-Engineered Skeletal Muscle," Poster Presentation at Engineering Tissues, Hilton Head Island, SC, February 25, 2001. (Abstracts available February 21, 2001.)	
	144	TIOLLIER, J. <i>et al.</i> , "Fibroblast Behavior on Gels of Type I, III, and IV Human Placental Collagens", Exp. Cell Res., 1990, pp. 95-104, Vol. 191.	
	145	VANDENBURGH, H. <i>et al.</i> , "Attenuation of Skeletal Muscle Wasting with Recombinant Human Growth Hormone Secreted from a Tissue-Engineered Bioartificial Muscle", Human Gene Therapy, 1998, pp. 2555-2564, Vol. 9.	
	146	VAN WACHEM, P.B. <i>et al.</i> , "Myoblast seeding in a collagen matrix evaluated <i>in vitro</i> ", J. Biomed. Materials Res., 1996, pp. 353-360, Vol. 30.	
	147	WARNER, S.B., <i>et al.</i> , "A Fundamental Investigation of the Formation and Properties of Electrospun Fibers," National Textile Center Annual Report, November 1999, pp. 1-10.	
	148	WATANABE, E. <i>et al.</i> , "Cardiomyocyte Transplantation in a Porcine Myocardial Infarction Model", Cell Transplantation, 1998, pp. 239-246, Vol. 7, no. 3.	
	149	WEINBERG, C. <i>et al.</i> , "A blood vessel model constructed from collagen and cultured vascular cells," Science, 1986, pp. 397-398, vol. 231.	

Examiner Signature	<i>Rosanne Hovson</i>	Date Considered	6/23/05
--------------------	-----------------------	-----------------	---------

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for Form 1449/A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)		Application Number	10/668,085
		Filing Date	September 22, 2003
		First Named Inventor	Gary L. Bowlin
		Group Art Unit	2861
		Examiner Name	Not Yet Assigned
Sheet 7 of 7	Attorney Docket Number	49122-0162 (49122-292673)	

OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
OK	150	WEISS, S.W. et al., "Revascularization of Skeletal Muscle Transplanted into the Hamster Cheek Pouch: Electron Microscopy", Microvascular Research, 1983, pp. 65-73, Vol. 26.	
	151	WNEK, G., Electroactive Materials and Systems: Applications to Fuel Cells and Biosensors. Abstract for Presentation at Molecular Geodesics, Inc., October 13 or 14, 1999.	
	152	WNEK, G., "Electroactive Materials and Systems: Applications to Fuel Cells and Biosensors," Abstract for Presentation of Materials Science and Engineering Seminar, Virginia Polytechnic Institute and State University, Blacksburg, VA, Presented October 22, 1999. www.eng.vt.edu/eng/materials/seminars/fall99/wnek.html.	
	153	WNEK, G., "Electrospinning of Biomaterials," Abstract of Presentation at University of Massachusetts Lowell Memorial Service and Technical Symposium Honoring Sukant K. Tripathy, Presented in Lowell, MA, February 16, 2001.	
	154	WNEK, G.E., Bowlin, G.L., and Simpson, D.G., "Electrospraying and Electrospinning of Polymers for Tissue Engineering/Biomaterials Applications." Abstract for Presentation at Poly Millennium 2000 an International Symposium by the Division of Polymer Chemistry/American Chemical Society, Hawaii, Presented December 10, 2000.	
	155	WNEK, G., "Production of Microfibers by Electrospinning," Abstract for Presentation at Phillip Morris Technical Center, Richmond, VA, Presented February 13, 2001.	
	156	WNEK, G., "Thinking Small About Old Polymers at the Medicine/Engineering Interface," Abstract for Presentation at Program in Polymer Science and Technology Seminar Series, Presented at Massachusetts Institute of Technology, Cambridge, MA, May 16, 2001.	
	157	WNEK, G., "Thinking Small About Old Polymers at the Medicine/Engineering Interface," Abstract for Presentation at Chemical Engineering Seminar, Worcester Polytechnic Institute, Worcester, MA, Presented October 18, 2001.	
	158	WONG, W. H. et al., "Synthesis and Properties of Biodegradable Polymers Used as Synthetic Matrices for Tissue Engineering", Synthetic Biodegradable Polymer Scaffolds, 1997, pp. 51-82, Chp. 4.	
	159	YE, QING, et al., "Fibrin gel as a three dimensional matrix in cardiovascular tissue engineering," Eur. J. Cardio-thoracic Surgery, 2000, pp. 587-591, vol. 17.	
OK	160	YEAGER, A. et al., "New Graft Materials and Current Approaches to an Acceptable Small Diameter Vascular Graft", ASAIO Transactions, 1988, pp. 88-94, Vol. 34.	
	161	ZENG, L. et al., "Fibrin Sealant Matrix Supports Outgrowth of Peripheral Sensory Axons," Scand J. Plast. Reconstr. Hand Surg., 1995, pp. 199-204, vol. 29.	
OK	162	ZUND, G. et al., "Tissue engineering: A new approach in cardiovascular surgery; Seeding of human fibroblasts followed by human endothelial cells on resorbable mesh," European Journal of Cardio-thoracic Surgery, 1998, pp.160-164, vol. 13.	

Examiner Signature	<i>Rosanne Koon</i>	Date Considered	6/23/05
--------------------	---------------------	-----------------	---------

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language translation is attached.

Not present in any parent case.



Approved for use through 10/31/2002 OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

(use as many sheets as necessary)

Sheet	1	of	1
-------	---	----	---

<b>Application Number</b>	<b>10/668,085</b>
<b>Filing Date</b>	<b>September 22, 2003</b>
<b>First Named Inventor</b>	<b>Bowlin</b>
<b>Group Art Unit</b>	<b>1651</b>
<b>Examiner Name</b>	<b>R. Kosson</b>
<b>Attorney Docket Number</b>	<b>49122-0162 (292673)</b>

[illegible][illegible]

**Examiner  
Signature**

Rosanne Kossow

Date  
Considered

6) 23/05

<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent document, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached.